

THE CONTENTS OF THIS DOCUMENT ARE
THE HIGHEST QUALITY AVAILABLE.

INITIAL BAB DATE 1/10/95

Project File Number OU 4-12

EDF Serial Number ER-WAG4-56

Functional File Number N/A

ENGINEERING DESIGN FILE

Project/Task OU 4-12 RI/FS

Subtask Source Term Investigation

EDF Page 1 of 52

TITLE: CFA Landfills II & III-INWMIS and IWMIS Databases

SUMMARY

The summary briefly defines the problem or activity to be addressed in the EDF, gives a summary of the activities performed in addressing the problem and states the conclusions, recommendations, or results arrived at from this task.

Attachments 1 through 7 contain information on data collection for INWMIS.

Attachment 1:

Subject: Memo of Conversation (Form EG&G-561) on Disposal Practices of CFA Shop to CFA Landfill II and III

Date: April 14, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Dave Dahlquist, EG&G Idaho, Inc.

Attachment 2:

Subject: Memo of Conversation (Form EG&G-561) Industrial Nonradioactive Waste Management Information System (INWMIS) and Disposal Practices at CFA Landfill II

Date: April 20, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Mel Wraught, EG&G Idaho, Inc.

Attachment 3:

Subject: Memo of Conversation (Form EG&G-561) Industrial Nonradioactive Waste Management Information System (INWMIS)

Date: April 24, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Debbie Litteer, EG&G Idaho, Inc.

Attachment 4:

Subject: Memo of Conversation (Form EG&G-561) Industrial Nonradioactive Waste Management Information System (INWMIS)

Date: May 10, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Debbie Litteer, EG&G Idaho, Inc.

Attachment 5:

Subject: Memo of Conversation (Form EG&G-561) on Disposal Practices at CFA Landfills II and III

Date: November 18, 1992

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Jim Crandall, EG&G Idaho, Inc.

Attachment 6:

Subject: Copies of Typical Nonradioactive Solid Waste Log Forms (Form EG&G-561)

Date: October 3, 1981 through October 29, 1981

Attachment 7:

Subject: Copies of Typical Industrial Waste Forms (Form ID-136)

Date: August 12, 1981 through January 12, 1982

EG&G Idaho, Inc.

FORM EGG-2631#

(Rev. 01-92)

Distribution (complete package):			
Distribution (summary page only):			
Author <i>Steven H. McCormick</i>	Dept. <i>ER-WA-4</i>	Reviewed <i>JERRY P. SKA</i>	Date <i>10/25/94</i>
		EG&G Review <i>JERRY P. SKA</i>	Date <i>10/25/94</i>
		Approved <i>TRIC Piquette</i>	Date <i>10/25/94</i>
		EG&G Approval	Date

Attachment 1

Memo of Conversation (Form EG&G-561) on Disposal Practices of CFA Shop to CFA Landfill II & III

Date: April 14, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Dave Dahlquist, EG&G Idaho, Inc.

EG&G Idaho, Inc.

Form: EG&G-561

MEMO OF CONVERSATION

Person Calling: Steve McCormick

Date: April 14, 1993

Representing Org: WAG 4

Time:

Person Called: Dave Dahlquist

Phone No. 526-2252

Representing Company: CFA Shop, EG&G Idaho, Inc.

Subject: Past disposal practices at CFA Shop.

I spoke with Dave about disposal information in the Industrial Nonradioactive Waste Information System (INWMIS) and past operations at the CFA shops.

Dave was aware of the general types of wastes disposed to CFA Landfills II & III from the CFA shop areas. Much of the waste disposed would have gone into dumpsters or other waste containers that would have been hauled to the landfills for disposal. These waste would have likely been categorized under the trash and sweepings category of the INWMIS database. The list should not be considered to be a complete assessment of wastes disposed from the CFA shop. Wastes: brake linings, tires, scrap metal (aluminum, steel and other), cables, wheels, insulation, glass, ballasts from light fixtures, light tubes, batteries, pesticides, plastic, oil filters, empty drums & containers, empty spray cans.

Dave indicated the filters would have included the large type from diesel engines and smaller filters from cars and pickup trucks. ~~The oil filters would~~ have been disposed without being crushed or drained in a 4 cu yd dumpster directly to the ground.

Dave indicated that the sump sludge delivered to the landfill would have come out of the sumps shown on the figure attached (taken from the Motor Pool Pond RI report). These sumps were cleaned periodically and the wastes disposed to the landfill. The sump sludge may have been disposed in a container or directly to the ground. The sumps, which are below floor concrete containers, retain solids, oil, grease, and other materials before they are carried by the sewage system to the CFA sewage plant.

We discussed the types of solvents used in the CFA shops. 111 Trichlorethane was used in a parts washer which discharged to the sump and sewage system. Dave also mentioned other types of solvents such as carburetor cleaners.

Additional Information:

Dave now is the environmental coordinator for the CFA shop area. When he took this position in 1989 he began a program to track wastes and eliminate hazardous materials from the operations. A process waste assessment (PWA) is attached which details hazardous materials eliminated from the shop during the past few years. The wastes described in the PWA may indicate types of wastes disposed in the landfills from 1970 to 1984.

Steve McCormick 4/14/93

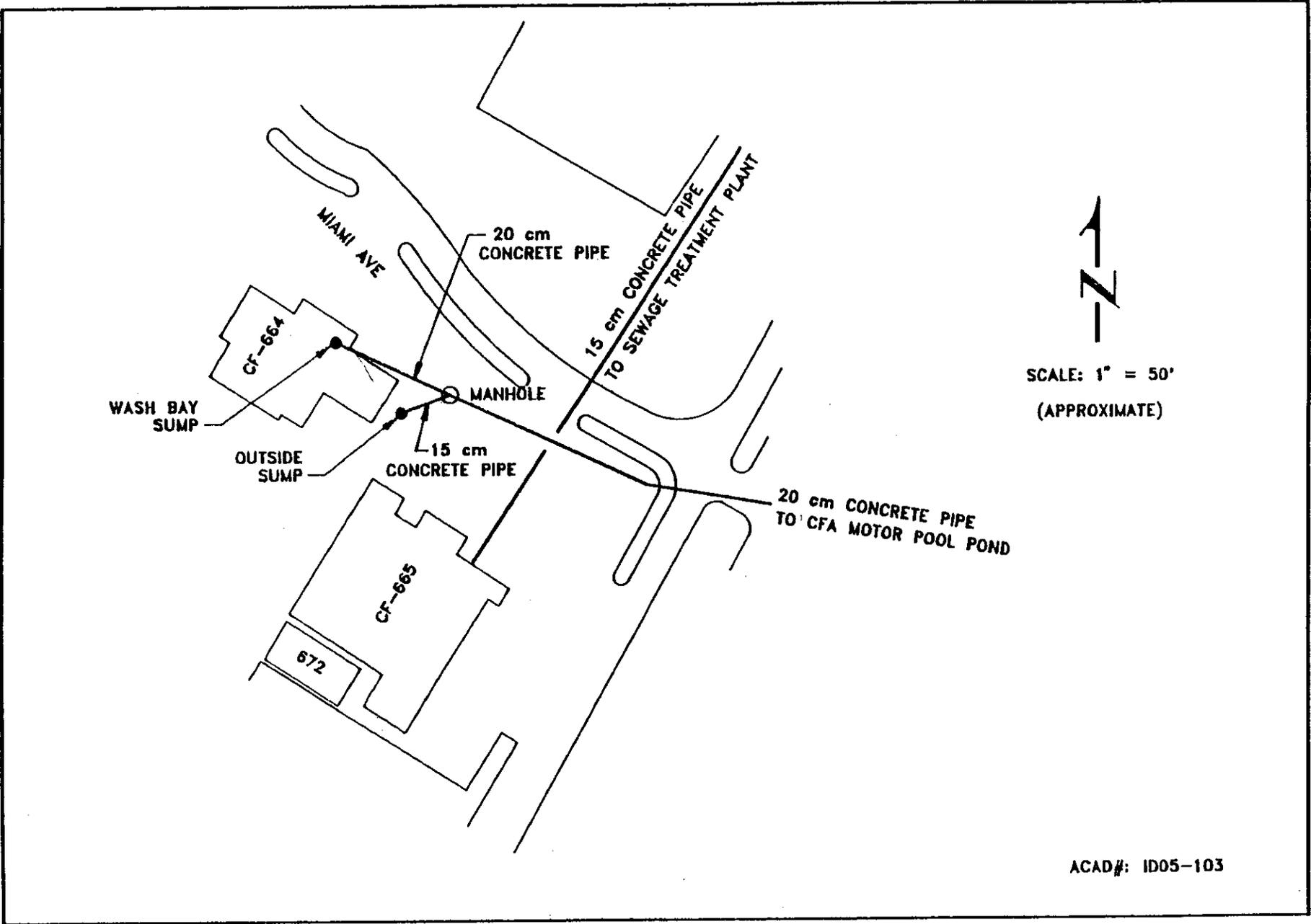


Figure 1-3. CF-664 waste sumps and piping leading to the CFA Motor Pool Pond.

Attachment 2

Memo of Conversation (Form EG&G-561) Industrial Nonradioactive Waste Management Information System (INWMIS) and Disposal Practices at CFA Landfill II

Date: April 20, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Mel Wraught, EG&G Idaho, Inc.

EG&G Idaho, Inc.

Form: EG&G-561

MEMO OF CONVERSATION

Person Calling: Steve McCormick

Date: April 20, 1993

Representing Org: WAG 4

Time:

Person Called: Mel Wrought

Phone No. 526-3720

Representing Company: CFA Landfills, EG&G Idaho, Inc.

Subject: Disposal practices at CFA Landfill 2 & 3 (closed portion).

I spoke with Mel Wrought about the Industrial Waste Information System (INWMIS) and past operations at Landfills 2 and 3. Mel worked as an equipment operator at Landfills 2 and 3 during waste disposal operations.

Mel related several details about the database and the nature of operations at both landfills. Below is a summary of the information provided about each landfill.

Landfill 2 - This landfill was started in a previously excavated gravel pit. The waste in Landfill II was disposed randomly over the area in "low spots" in the pit. As waste was brought in it would have been dumped on the ground in a low spot at any location in the landfill area and then covered with soil. It was not dumped over the bank of the gravel pit or disposed in a systematic manner.

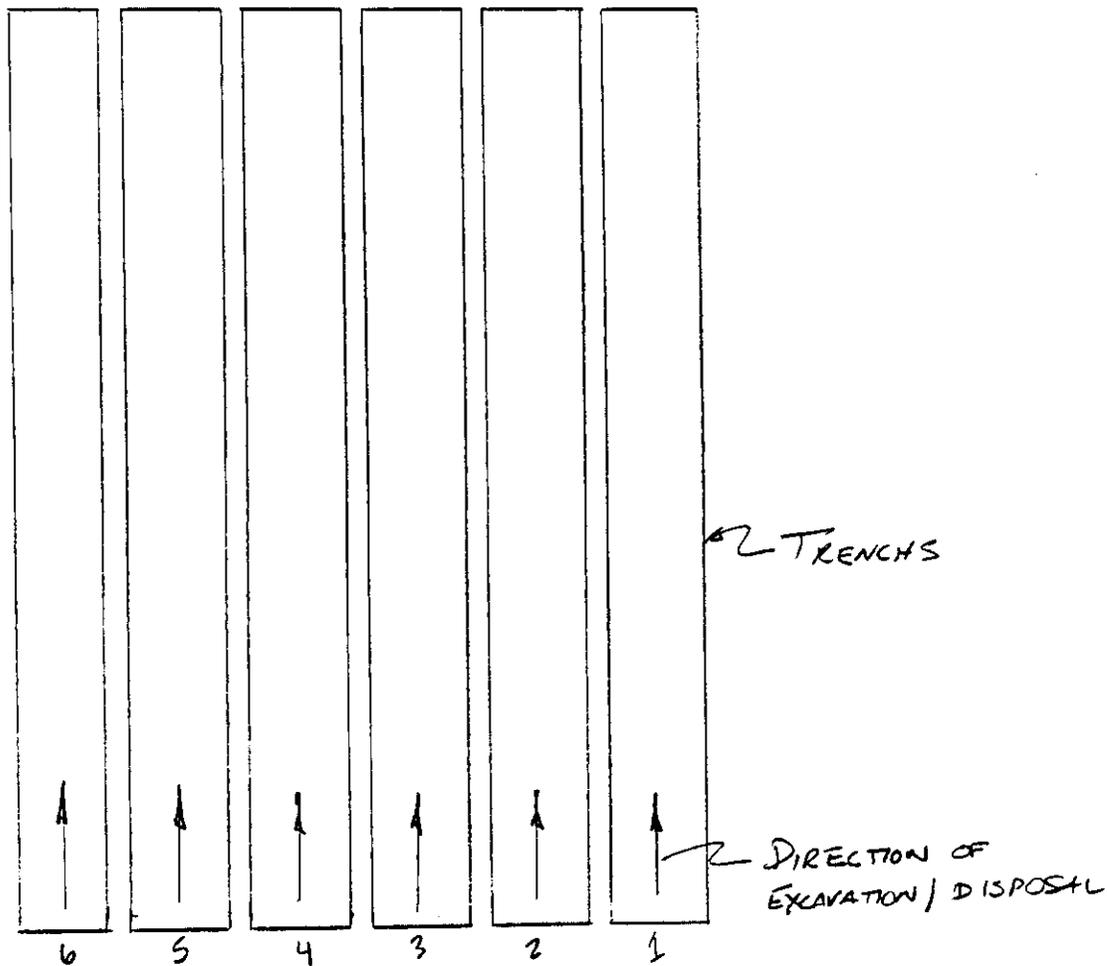
Landfill 3 - The landfill trenches were excavated from ground level as waste was disposed. The eastern trench was the first to be excavated. It was started from the south end and excavated in a northerly direction. Remaining trenches were also started from the south end and excavated northerly direction (see Figure 1). Waste materials were covered with excavated soil after disposal. Excess soil from the excavation of trenches was placed in piles and used by various INEL facilities as fill material for roads and other projects. Large rock from excavations at ICPP were disposed at the landfills.

Mel feels the reliability of the INWMIS database is very low for several reasons. Workers who disposed waste to the landfills were did not discriminate between various types of waste. The "trash and sweepings" category in INWMIS was used heavily by operators and landfill users to describe wastes materials which should have been classified under another category such as construction debris or chemicals. Mel indicated that many types of liquids and solvents (TCE) were disposed in both landfills and were classified as "trash and sweepings". Also, there was no process to confirm information submitted on the waste disposal forms. The forms were submitted by landfill operators after or before disposal and placed in a collection box at the landfill. The information was not checked to ensure that the types of waste actually disposed in the landfill fit the appropriate category in INWMIS. Waste was also not checked for radioactive contamination before or after disposal.

Map of CFA Landfill 3 attached.

Steve McCormick 4/20/93

ATTACHMENT TO
MEMORANDUM OF
CONVERSATION 4/20/1993



CFA LANDFILL III

Attachment 3

Memo of Conversation (Form EG&G-561) Industrial Nonradioactive Waste Management Information System (INWMIS)

Date: April 24, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Debbie Litteer, EG&G Idaho, Inc.

EG&G Idaho, Inc.

Form: EG&G-561

MEMO OF CONVERSATION

Interviewer: Steve McCormick

Date: May 10, 1993

Representing Org: WAG 4

Time: 1:30 pm

Interviewee: Debbie Litteer

Phone No. 526-2504

Representing Company: EG&G Idaho, Inc., INWMIS database

Subject: INWMIS Database History

Debbie was employed Argonne National Lab from 1974 to 1984. Her job was to enter information from waste forms (ID 130 forms) to the database. She currently works at EG&G Idaho, Inc. with INWMIS database.

SM: How was information on waste deliveries to the landfills gathered and entered in the Industrial Waste Management Information System (IWMIS) database?

DL: Waste was brought to the landfills from various INEL facilities. A form (ID 130) was available at the landfill to collect waste disposal information. Most of the information on these forms was collected by the landfill equipment operators who were responsible for them. The equipment operators were not full time at the landfills, consequently some of the forms were completed by waste delivery drivers. Completion of the form may have been completed before or after the disposal of waste occurred. There was no procedure for weighing or judging the volumes of waste disposed. The forms were NCR carbonless with several colored copies on each, consequently the bottom copies were sometimes difficult to read. Landfill operations would sort the bottom forms at the end of the month by facility and sent them back to a designated facility contact. The facility contact would then enter the information and data on each form to the database and create a monthly report of the total amounts and types of wastes delivered from that facility to the landfill. The monthly report was included in the overall INEL summary of wastes.

Steve A. McCormick, 5/10/1993

Attachment 4

Memo of Conversation (Form EG&G-561) Industrial Nonradioactive Waste Management Information System (INWMIS)

Date: May 10, 1993

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Debbie Litteer, EG&G Idaho, Inc.

EG&G Idaho, Inc.

Form: EG&G-561

MEMO OF CONVERSATION

Interviewer: Steve McCormick

Date: May 10, 1993

Representing Org: WAG 4

Time: 1:30 pm

Interviewee: Debbie Litteer

Phone No. 526-2504

Representing Company: EG&G INWMIS database

Subject: INWMIS Database History

Debbie was employed Argonne National Lab from 1974 to 1984. Her job was to enter information from waste forms (ID 130 forms) to the database. She currently works at EG&G Idaho, Inc. with INWMIS database. I asked Debbie several questions about the Industrial Waste Management Information System (IWMIS) and the Industrial Nonradioactive Waste Management Information System (INWMIS) database.

SM: What were the original categories in the IWMIS database? DL: The Industrial Waste Management Information System (INWMIS) was divided into categories shown below in the first column labeled IWMIS, the second column are the categories for INWMIS.

IWMIS	INWMIS
1. Trash	1. Trash & Sweepings
2. Cafeteria garbage	2. Cafeteria garbage
3. Wood & scrap lumber	3. Wood & scrap lumber
4. Masonry & concrete	4. Masonry & concrete
5. Scrap Metal	5. Scrap Metal
6. Oil	96. Oil
7. Solvents	97. Solvent
8. Chemicals	98. Chemicals
Liquids (gal)	
Solids (kg)	
9. Others	6. Other - must be specified
Liquids (gal)	7. "
Solids (cu ft)	8. "
	9. "
	10. "

In 1991 the computer system which held IWMIS was upgraded. During this transition several waste categories shown in the second column under INWMIS were added to the database to improve the detail and accuracy of reporting. Information and data collected from the inception of IWMIS was included in the conversion, however, the actual data was not changed. Only the category totals in INWMIS changed because certain wastes, which were under category 9 (others) in IWMIS, were shifted to a more appropriate category where sufficient detail existed. For example, some of the wastes originally in Category 9 of IWMIS that indicated "scrap lumber", were shifted to category 3 of INWMIS.

SM: In your opinion what is the reliability of the INWMIS database? DL: If you mean, is there a one to one correspondence between the wastes described in the database and the wastes actually in the landfills, the answer is no. 100% of the waste that is in the database is actually in the landfills but not all of the waste in the landfills was entered into the database. I would say that the database is

approximately 70% reliable using this terms.

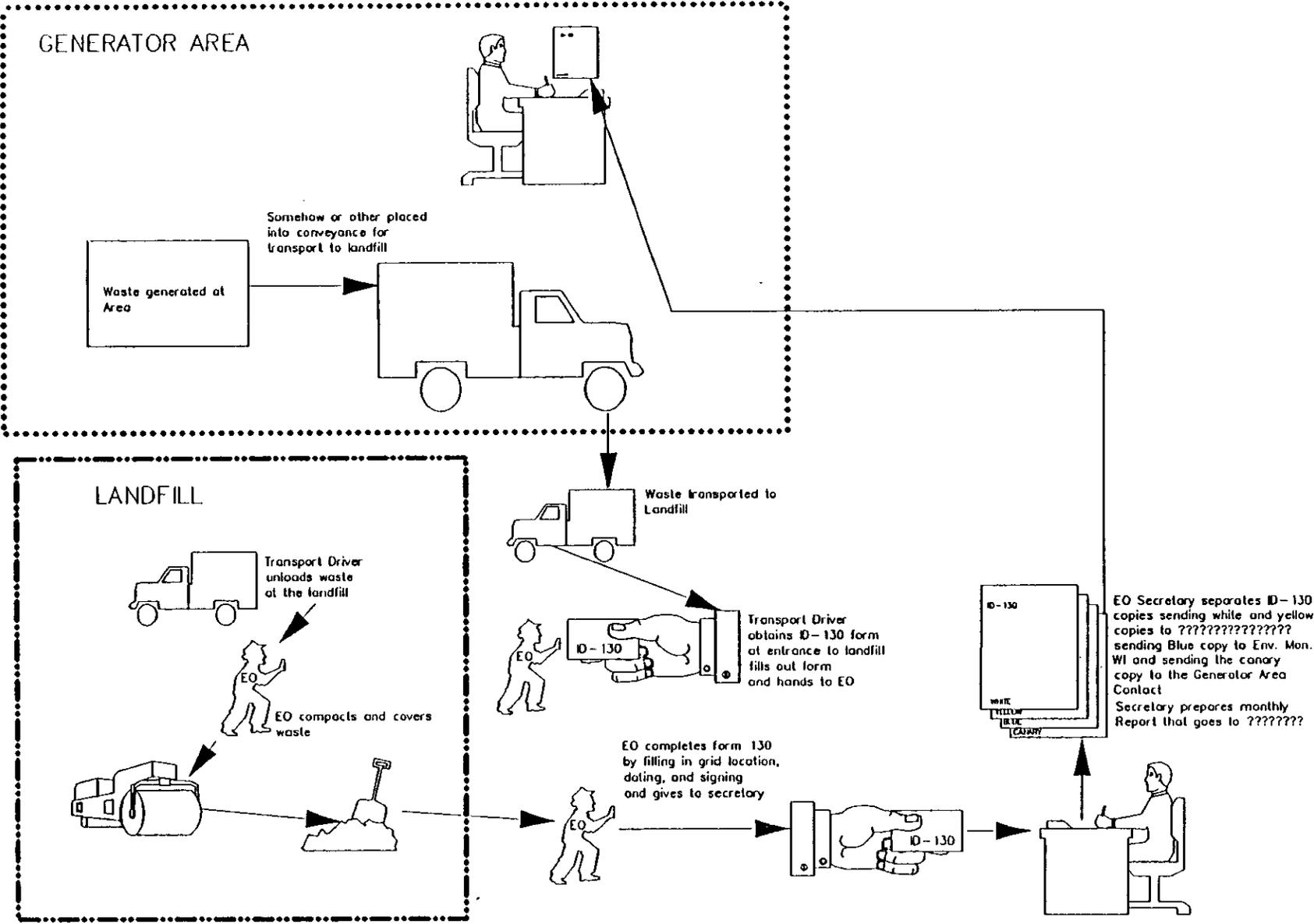
SM: What are the sources of unreliability in the database? DL: The primary source of unreliability was lost or unreadable ID-130 forms. Also, the volumes and amounts of waste loads were estimated by equipment operators in the field. No accurate measurements were taken.

SM: Is unauthorized or "midnight dumping" a source of uncertainty in the database? DL: No, most of the uncertainty is a result of gaps in the flow of information as discussed above.

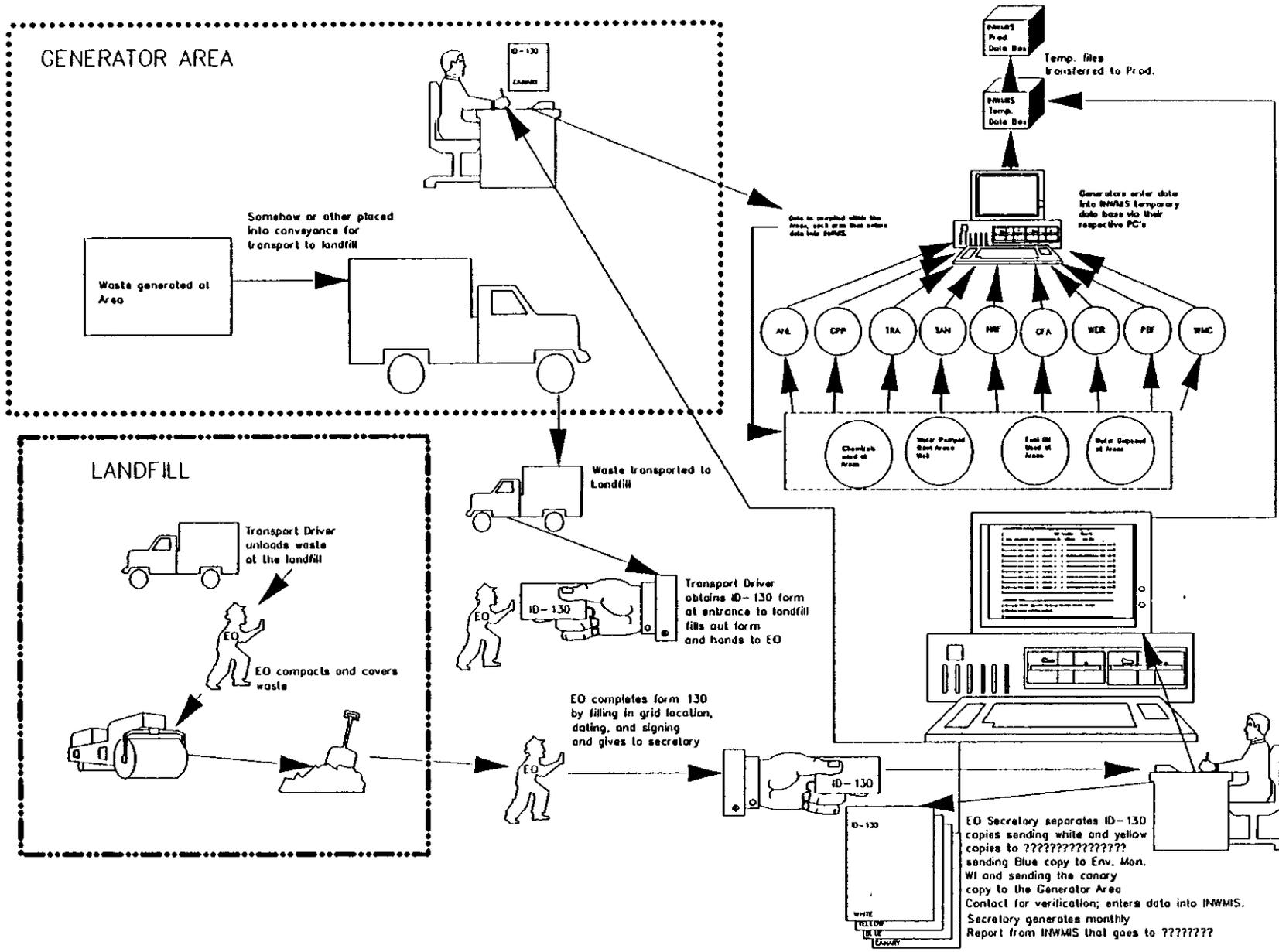
Additional Information: Attached are diagrams which show the flow of information for IWMIS and INWMIS.

Steve McLinnh May 10, 1993

CURRENT FLOW OF LANDFILL WASTE AND DATA



INWMIS PROPOSED FLOW OF LANDFILL WASTE AND DATA



Attachment 5

Memo of Conversation (Form EG&G-561) on Disposal Practices at CFA Landfills II & III

Date: November 18, 1992

Interviewer: Steve McCormick, EG&G Idaho, Inc.

Interviewee: Jim Crandall, EG&G Idaho, Inc.

EG&G Idaho, Inc.

FORM EGG-2631#

(Rev. 01-92)

Attachment 6

Copies of Typical Nonradioactive Solid Waste Log Forms (Form EG&G-130)

Date: October 3, 1981 through October 29, 1981



Idaho, Inc.

FACILITY SERVICES MAINTENANCE DIVISION

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

CPP

Area of Origin

10/3/81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
		4 yds		
Disposal Area <u>CFA</u>				
Grid Identification <u>Q6</u>				

Property Management (or Alternate)
inspection & approval to dump.

EG

[Signature]

DELIVERED BY



Idaho, Inc.

FACILITY SERVICES MAINTENANCE DIVISION

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

Tan

Area of Origin

10-5-81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
40 yds	8 yds			
Disposal Area <u>CFA</u>	<u>CFA</u>			
Grid Identification <u>G-7</u>				

Property Management (or Alternate)
inspection & approval to dump.

27

[Signature]

DELIVERED BY

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

epp

Area of Origin

10-1-81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
			<i>4 yards</i>	
Disposal Area			<i>CFA</i>	
Grid Identification			<i>H-1</i>	

Property Management (or Alternate)
inspection & approval to dump.

H.P.

D+S const Charles Haskell

DELIVERED BY

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

ccp

Area of Origin

10-1-81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
		<i>3 yd</i>		
Disposal Area		<i>CFA</i>		
Grid Identification		<i>E7</i>		

Property Management (or Alternate)
inspection & approval to dump.

Robert P. Lott



Idaho, Inc.

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

CFA

Area of Origin

10/22/81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
2 1/2 yd		3 Rail Road Ties		
Disposal Area CF				
Grid Identification G-6				

Property Management (or Alternate) inspection & approval to dump.

[Signature]
DELIVERED BY



Idaho, Inc.

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

CFA

Area of Origin

10-22-81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
2				1/2 assorted metal
Disposal Area CFA				
Grid Identification G-6				

Property Management (or Alternate) inspection & approval to dump.

[Signature]
DELIVERED BY

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

CFA

Area of Origin

10-6-81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
1 pickup load 1/2-yd ³ .				
Disposal Area <u>CF</u>				
Grid Identification <u>G-7</u>				

Property Management (or Alternate)
inspection & approval to dump.

ED Crooks

DELIVERED BY

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

CFA

Area of Origin

10-6-81

Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
1 pickup load 1/2-yd ³ .				
Disposal Area <u>CF</u>				
Grid Identification <u>G-7</u>				

Property Management (or Alternate)
inspection & approval to dump.

ED Crooks



Idaho, Inc.

FACILITY SERVICES MAINTENANCE DIVISION

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

Jan
Area of Origin

10-15-81
Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
40 yds	8 yds			
Disposal Area	CFH			
Grid Identification	G-6			

Property Management (or Alternate)
inspection & approval to dump.

C. J. Williams
DELIVERED BY



Idaho, Inc.

FACILITY SERVICES MAINTENANCE DIVISION

FORM EG&G-130 (Rev. 4-79)

NONRADIOACTIVE SOLID WASTE LOG

NW CT-
Area of Origin

10-15-81
Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1 Trash Paper, Sweepings, etc.	TYPE-2 Cafeteria Garbage	TYPE-3 Wood and Scrap Lumber	TYPE-4 Noncombustible Masonry, Concrete	OTHER-SPECIFY
2 yds				
Disposal Area	CF			
Grid Identification	G-6			

Property Management (or Alternate)
inspection & approval to dump.

M. K. DeWard

NONRADIOACTIVE SOLID WASTE LOG

Argonne
Area of Origin

10-29-81
Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1	TYPE-2	TYPE-3	TYPE-4	
Trash Paper, Sweepings, etc.	Cafeteria Garbage	Wood and Scrap Lumber	Noncombustible Masonry, Concrete	OTHER-SPECIFY
			asphalt 10 yds.	
Disposal Area			CFA	
Grid Identification			E-5	

Property Management (or Alternate)
inspection & approval to dump.

Clark Bros
DELIVERED BY

NONRADIOACTIVE SOLID WASTE LOG

Fris Stat
Area of Origin

10-29
Date

TYPE WASTE AND VOLUME (CUBIC YARDS)

TYPE-1	TYPE-2	TYPE-3	TYPE-4	
Trash Paper, Sweepings, etc.	Cafeteria Garbage	Wood and Scrap Lumber	Noncombustible Masonry, Concrete	OTHER-SPECIFY
			asphalt 30 yds	
Disposal Area			CFA	
Grid Identification			E-5	

Property Management (or Alternate)
inspection & approval to dump.

EG&G Idaho, Inc.

FORM EGG-2631#

(Rev. 01-92)

Attachment 7

Copies of Industrial Waste Forms (Form ID-136)

Date: August 12, 1981 through January 12, 1982

DATE		AREA OF ORIGIN		PAG		N=NEW A=AMENDED D=DELETE	
M	D	C	Y	Y			
2	3	4	5	6	7	8	9
0	7	3	1	8	1	C	F

SECTION 0
ON ALL CARDS

Prepared By: Luther Lummis Date: 8/12/81 Phone: 2111
 Approved By: B.J. Remmen Date: 8/12/81 Phone: 2111

SECTION 1: FUEL OIL AND WELL WATER SUMMARY

FUEL OIL USED				WELL WATER			NOT USED
GROSS VOLUME GALLONS	NOx #/Gal	%S	PARTICULATE #/Gal	WATER PUMPED GALLONS	WELL OR BUILDING NUMBER		
+4.202E+03	10	0.32	10	+2.007E+06			
+1.24E+02	10	0.32	10	+1.447E+07			
+ . E +	10	. 10	10	+1.308E+05			
+ . E +	10	. 10	10	+ . E +			
+ . E +	10	. 10	10	+ . E +			

SECTION 2: WATER DISPOSAL

WATER DISPOSED			SEWAGE					
AIR GROSS VOLUME GALLONS	SURFACE GALLONS	SUBSURFACE GALLONS	GROSS VOLUME GALLONS	DO PPM	BOD PPM	SETTLABLE SOLIDS-m/l	BUILDING NUMBER	
+ . E +	+9.212E+06	+1.391E+05	+2.936E+06	1.8	3.77.8	81.2	165	
							21	

SECTION 3: INDUSTRIAL WASTE SUMMARY

DESCRIPTION OF WASTE	DISPOSAL OR STORAGE LOCATION	
	AREA	WITHIN AREA
228.57 DIS	C	F
96.072 DIS		
11.073 DIS		
38.074 DIS		
1.075 DIS		
1.579 DIS OTHER-WEEDS		

SECTION 4: LIQUID AND AIRBORNE RELEASE POINTS

RELEASE POINT SUMMARY		SUBSTANCE SUMMARY	
RELEASE POINT DESCRIPTION	RELEASE POINT TYPE	SUBSTANCE	AMOUNT
SEWAGE PLANT	C-3.125E+06	CHLORINE	-1.330E+02
		AUTO CLEANERS	-4.000E+01
		QUICKLON	-1.820E+02
		SALT	-3.000E+02
		SOAP	-3.770E+02
		BLEACH	-6.800E+01
		LAUNDRY PRODUCTS	-1.183E+03

DATE		AREA OF ORIGIN	PARTICULATE	NEW AMENDED DELETE
M	D			
08	31	18	9	0
08/31/18		SECTION 0 On all cards		

Prepared By	Date	Phone
Approved By	Date	Phone

SECTION 1: FUEL OIL AND WELL WATER SUMMARY

FUEL OIL USED		WELL WATER		BUILDING NUMBER
GROSS VOLUME GALLONS	NO. %S	PARTICULATE #/Gal	WATER PUMPED GALLONS	
+ 8752 E + 03	10	0.32	+ 4731 E + 06	NOT USED
+	10	10	+ 1290 E + 07	
+	10	10	+ 1821 E + 05	
+	10	10	+	
+	10	10	+	

SECTION 2: WATER DISPOSAL

WATER DISPOSED			SEWAGE				BUILDING NUMBER
AIR SURFACE	SUBSURFACE	GROSS VOLUME GALLONS	GROSS VOLUME GALLONS	DO PPM	BOD PPM	SETTLABLE SOLIDS - ml/l	
+	+ 1505 E + 07	+ 2590 E + 05	+ 3302 E + 06	4	1276	880	32 20 45691

SECTION 3: INDUSTRIAL WASTE SUMMARY

QUANTITY GROSS VOLUME GALLONS	DESCRIPTION OF WASTE	DISPOSAL OF STORAGE LOCATION	
		AREA	WITHIN AREA
297.01 DS		CELANDELL	
90.04 DS)	
29.53 DS			
19.54 DS			
1.04 DS			
27.09 DS	OTHER - ASPHALT		
6.99 DS	OTHER - DIRT		
26.09 DS	OTHER - RAFFINE		
6.09 DS	OTHER - WEEDS		

SECTION 4: LIQUID AND AIRBORNE RELEASE POINTS

RELEASE POINT DESCRIPTION	MATERIALS	SUBSTANCE	SUBSTANCE SUMMARY	
			QUANTITY	UNIT
SEWAGE PLANT	CHLORINE	- 1.580 E + 08 P		
	AUTR CLEANERS	- 4.000 E + 01 K		
	QUICKLEEN	+ 1.800 E + 08 P		
	SALT	- 3.000 E + 02 P		
	SOAP	- 1.860 E + 02 P		
	BLEACH	- 7.800 E + 01 P		
	LAUNDRY PRODUCTS	- 8.690 E + 08 P		

EG&G Idaho, Inc.

FORM EGG-2631#

(Rev. 01-92)

Attachment 7

Copies of Industrial Waste Forms (Form ID-136)

Date: August 12, 1981 through January 12, 1982

EG&G Idaho, Inc.

Form: EG&G-561

MEMO OF CONVERSATION

Person Calling: Steve McCormick

Date: April 20, 1993

Representing Org: WAG 4

Time:

Person Called: Mel Wrought

Phone No. 526-3720

Representing Company: CFA Landfills, EG&G Idaho, Inc.

Subject: Disposal practices at CFA Landfill 2 & 3 (closed portion).

I spoke with Mel Wrought about the Industrial Waste Information System (INWMIS) and past operations at Landfills 2 and 3. Mel worked as an equipment operator at Landfills 2 and 3 during wasted disposal operations.

Mel related several details about the database and the nature of operations at both landfills. Below is a summary of the information provided about each landfill.

Landfill 2 - This landfill was started in a previously excavated gravel pit. The waste in Landfill II was disposed randomly over the area in "low spots" in the pit. As waste was brought in it ^{could} have been dumped on the ground in a low spot at any location in the landfill area and then covered with soil. It was not dumped over the bank of the gravel pit in a systematic manner.

Landfill 3 - The landfill trenches were excavated from ground level ^{before} waste was disposed. The eastern trench was the first to be excavated. It was started from the south end and excavated in a northerly direction. Remaining trenches were also started from the south end and excavated northerly direction (see Figure 1). Waste materials were covered with excavated soil after disposal. Excess soil from the excavation of trenches was placed in piles and used by various INEL facilities as fill material for roads and other projects. Large rock from excavations at ICPP were disposed at the landfills.

Mel feels the reliability of the INWMIS database is very low for several reasons. Workers who disposed waste to the landfills ^{did} not discriminate between various types of waste. The "trash and sweepings" category in INWMIS was used heavily by operators and landfill users to describe wastes materials which should have been classified under another category such as construction debris or chemicals. Mel indicated that many types of liquids and solvents (TCE) were disposed in both landfills and were classified as "trash and sweepings". Also, there was no ^{procedure} ~~accountability~~ ^{system} for information submitted on the waste disposal forms. The waste disposal forms were submitted by landfill operators after or before disposal and placed in a collection box at the landfill. The information was not checked to ensure that the types of waste actually disposed in the landfill fit the appropriate category in INWMIS. Waste was also not checked for radioactive contamination before or after disposal. ^{to confirm}

Map of CFA Landfill 3 attached.

Steve H. McCormick 4/26/93

EG&G Idaho, Inc.

Form: EG&G-561

MEMO OF CONVERSATION

Person Calling: Steve McCormick

Date: April 24, 1993

Representing Org: WAG 4

Time: 2:00pm

Person Called: Debbie Litterer

Phone No. 526-2505

Representing Company: EG&G INWMIS database

Subject: INWMIS Database History

Debbie was employed Argonne National Lab from 1974 to 1984. Her job was to enter information from waste forms (ID 130 forms) to the database. She currently works at EG&G Idaho, Inc. with INWMIS database.

I asked Debbie how information was taken from the gathered and entered into the database during the period from 1970 to 1984. As waste was brought to the landfills from the various INEL facilities it would be disposed and recorded on ID 130 forms available at the landfill. The forms would be completed by the user or an equipment operator. ^{who was} ~~The equipment operators~~ were responsible for the forms and other information related to waste disposal. The forms were NCR carbonless with several copies which resulted in poor copies on the bottom forms. At the end of the month the bottom forms were given to the facility ^{in control} ~~contact~~ who collected the forms and entered the information and data into the data base. Many of the forms were difficult to read with the result that an unknown amount of waste is not accounted for in INWMIS. ^{Alec: entry in file} ~~The information from the forms was entered into the database and a report was sent to be compiled with the reports from the other facilities. The information in INWMIS is a monthly summary of the waste disposed to Landfills II and III. ~~The database was taken from a mainframe to the current system in 1991.~~~~ ^Q

Steve McCormick 4/24/1993